

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 13 and 16 are requested to be canceled without prejudice or disclaimer.

Claims 1, 10, 14 and 15 are currently being amended.

Claims 17 and 18 are being added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 10, 14, 15, 17 and 18 are now pending in this application.

Examiner Interview

Applicant appreciates the courtesy extended by the Examiner during the telephonic interview conducted on April 22, 2009. A Statement of Substance of Interview is submitted herewith.

Rejections under 35 U.S.C. §§ 101 and 112

Claims 13 and 16 were rejected under 35 U.S.C. §§ 101 and 112. Applicant has canceled claims 13 and 16 without prejudice or disclaimer. Accordingly, the rejections of claims 13 and 16 are moot.

Rejections under 35 U.S.C. § 103

Claims 1, 10 and 13-16 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 7,107,066 to Toth *et al.* (hereinafter “Toth”) in view of U.S. Patent No. 7,170,871 to Eyuboglu *et al.* (hereinafter “Eyuboglu”). As to canceled claims 13 and 16, the rejection is moot. As to claims 1, 10, 14 and 15, Applicant has amended these claims to more clearly recite the various features of the claimed invention. Applicant respectfully traverses the rejections, as applied to the amended claims and to newly added claims 17-18, for at least the following reasons.

As noted in earlier responses, embodiments of the present invention provide the advantage that the establishment of the multicast/broadcast service context of a controlling device and the establishment of the user equipment multicast/broadcast service context are not required to be effected simultaneously. As described in the specification, this advantage is particularly realized when the SRNC and the CRNC are different controllers. See e.g., Specification, page 3, paragraph [0008].

In accordance with embodiments of the present invention, a controlling device of a radio access network, such as the CRNC, receives a user equipment active list from a serving device, such as an SRNC. The list includes one or more user equipments indicating a mode of joining a multicast/broadcast service and being within a cell controlled by another radio access network controller. In accordance with certain embodiments, the CRNC determines the cell of the one or more user equipments indicating by checking the user equipment active list. See Specification, page 13, line 25 – page 14, line 2. The CRNC sends the user equipment active list to the other radio access network controller which controls the determined cell, and receives a channel type configuration from the other radio access network controller for the connection of the multicast/broadcast service to the one or more user equipments. Thus, in accordance with embodiments of the present invention, the CRNC selects a channel when activating a multicast/broadcast service. Each of the independent claims have been amended to more clearly recite such features. Further, newly added claims 17 and 18 each recite similar features.

Neither Toth nor Eyuboglu teach or suggest at least the above-noted features of the pending claims.

A. Toth fails to teach or suggest receiving a user equipment active list by a serving radio access network controller from a serving device of a core network.

Toth does not relate to and, therefore, does not address issues related to a system in which the CRNC and the SRNC are different controllers. Rather, Toth merely discloses radio access nodes which perform both functionalities. There is no teaching or suggestion of different controllers in the radio network. Since the system of Toth does not include different controllers CRNC and SRNC, the issues related thereto are not addressed by Toth.

The Examiner cites Toth as disclosing “receiving a user equipment active list by a service device of a radio access network from a serving device of a core network. See Office Action dated October 24, 2008, page 4. Applicant respectfully disagrees with the Examiner’s interpretation of the disclosure of Toth as applied to the pending claims.

Toth discloses activation of a multicast session. See Toth, Abstract. Based on the multicast context, the SGSN and the GGSN derive routing tables which enable forwarding and possible replication of multicast data packets. See Toth, col. 3, line 64 - col. 4, line 4. In accordance with the disclosure of Toth, it is the SGSN which informs the radio access network that the mobile station is joining the multicast group.

Thus, Toth relates entirely to SGSN functions and fails to provide any disclosure related to the radio network level. For example, there is not disclosure whatsoever in Toth of any negotiation between the radio network and the core network. Accordingly, Toth fails to teach or suggest receiving a user equipment active list by a serving radio access network controller from a serving device of a core network, as recited in the pending claims.

B. Toth fails to teach or suggest determining the cell of the one or more user equipments indicating a mode of joining the multicast/broadcast service.

The Examiner cites Toth as disclosing “determining a location of a user equipment desiring to join the multicast/broadcast service by checking the user equipment active list” at Toth, col. 7, lines 5-16. See Office Action dated October 24, 2008, page 4. Applicant has amended the claims to more clearly recite the above-noted feature. For example, claim 1 now recites “determining the cell of the one or more user equipments indicating a mode of joining the multicast/broadcast service, wherein said determining comprises checking the user equipment active list”

The portion of Toth cited by the Examiner describes a procedure to handle a mobile station moving and entering a new routing area. As noted above, the system of Toth does not include different controllers CRNC and SRNC and does not address issues related thereto. Accordingly, in accordance with the disclosure of Toth, the disclosed routing procedure is performed between different SGSNs when the mobile station moves and, unlike embodiments of the present invention, does not involve the SRNC or CRNS level. In fact, there is absolutely no disclosure related to any SRNC or CRNC.

Further, Toth discloses that the SGSN informs the radio access network that the mobile station is joining a multicast group so that the proper radio access bearer can be set up for the given multicast session. See Toth, col. 6, lines 32-35. However, Toth fails to disclose how a cell of one or more user equipments, being within a cell controlled by another radio access network controller, is determined.

Thus, Toth fails to teach or suggest determining the cell of the one or more user equipments indicating a mode of joining the multicast/broadcast service, as recited in the pending claims.

C. Toth fails to teach or suggest sending the user equipment active list to said another radio access network controller which controls the determined cell.

The Examiner cites Toth as disclosing “sending the user equipment active list to a device of the radio access network wherein the user equipment active list comprises, when applicable, user equipments, joining the multicast/broadcast service, within a cell controlled by another controlling device” at Toth, col. 3, lines 64-66; col. 4, lines 6-13; and col. 6, lines 32-35. See Office Action dated October 24, 2008, page 4. Applicant has amended the claims to more clearly recite the above-noted feature. For example, claim 1 now recites “sending the user equipment active list to said another radio access network controller which controls the determined cell”

The cited portion of Toth describes a list of the current members of a multicast group and the use of that list by SGSN and GGSN to derive routing tables and to inform the radio access network that a mobile station is joining the multicast session. Again, since the system of Toth does not include different controllers CRNC and SRNC and does not address issues related thereto, Toth fails to teach or suggest sending the active list from the SRNC to another radio access network controller controlling a cell where some of the user equipments in the active list reside.

Thus, Toth fails to teach or suggest sending the user equipment active list to said another radio access network controller which controls the determined cell, as recited in the pending claims.

D. Eyuboglu fails to cure the above-noted deficiencies of Toth.

The Examiner does not cite Eyuboglu as disclosing the above-noted features. Further, a thorough review of the disclosure of Eyuboglu by Applicant fails to yield any such disclosure.

Eyuboglu discloses that when a new session is to be established, the serving RNC interacts with the session manager. See Eyuboglu, col. 3, lines 49-54. The session manager

provides the UATI to be assigned to the AT and stores the session parameters that the serving RNC has determined during the key exchange and configuration phases of the session set-up.

There is no disclosure in Eyuboglu of the key exchange and configuration phases of the session set-up. Further, there is no disclosure in Eyuboglu of how the session parameters are determined by the SRNC. Eyuboglu also fails to describe the process between SRNC and another RNC, controlling a cell in which user equipments willing to activate a multicast session reside, to set up session and decide on the channel type (e.g., p-t-p or p-t-m) for the user equipments. Eyuboglu merely describes routing of data packets to a terminal as the terminal moves from one access node to another access node. See Eyuboglu, Abstract and Claim 1.

Thus, Eyuboglu fails to cure the deficiencies of Toth as applied to the pending claims.

Conclusion

“To establish a *prima facie* case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations.” M.P.E.P. § 2142.

Since the cited references fail to teach or suggest at least the above-noted feature, the Office Action fails to establish a *prima facie* case of obviousness. Accordingly, independent claims 1, 10, 14, 15, 17 and 18 are patentable.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the

credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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